Closing the Achievement Gap

Presented by Christopher Bergfalk
2009 Teacher of The Year Finalist

My Students' 2009 DC CAS Results

- My students' hard work and learning was reflected in their DC CAS Scores
  - 2008 & 2009 DC CAS: Most of my students moved up a proficiency level (BB, BAS, PROF, ADV) from the prior year
  - 29 Proficiency level increases total in 2009 (7 in reading and 20 in math). An average of 1 level per student.
  - 22 Proficiency level increases total in 2008 (11 in reading and 11 in math)

- However, overall test scores for all students only tell part of the story.

The Achievement Gap

Achievement Gap on the NAEP
(National Assessment of Educational Progress)

- The Achievement Gap is a nation wide problem (NAEP 4th Grade Math Test)*
  - 26 point difference (gap) between black and white students nationwide in math
  - No state in the US is without an achievement gap.
  - It ranges from 8 points to 57 points in Math and from 13 to 67 points in Reading.

**http://nces.ed.gov/nationsreportcard/statecomparisons/*

- DC had the largest increase overall on the 4th Grade NAEP Math Test, however:
  - DC is last in the nation for overall test scores for all students, 8 points less than the next state*
  - But, DC is first for white students, with a 12 point lead over the next closest state*

**http://nces.ed.gov/nationsreportcard/statecomparisons/*

Achievement Gap on the NAEP
(National Assessment of Educational Progress)

Achievement Gap on the NAEP
(National Assessment of Educational Progress)

- DC has the largest achievement gap in the Nation*:
  - **57 point difference in math** between white students and black students. *The next largest state's achievement gap is 24 points smaller.*
  - The average increase in white students' test scores were **twice** the average increase in black student's scores
  - **Our achievement gap is growing**. It increased by the 3rd largest margin in the nation.

**http://nces.ed.gov/nationsreportcard/statecomparisons/*

Achievement Gap on the NAEP
(National Assessment of Educational Progress)

- The results from the 2009 NAEP 4th Grade Reading Test have not been released yet, however, the 2007 results show the same trends:
  - DC has the **largest achievement gap at 67** points. *29 points more than the next largest state.*
  - **DC is last for overall** scores for all students, but **first for white students**
  - The **achievement gap grew** from 2005 to 2007, but only by one point. DC's had the 12th largest increase in the achievement gap.

2009 DC CAS Reading

- This achievement gap is also reflected in the proficiency levels of the 2009 DC CAS for DCPS in Reading*
  - In the 6th grade, only 53% of black students vs. 98% of white students were proficient (**45% gap**)
  - System wide, 38% of black students are proficient vs. 87% of white students (**49% gap or over twice as many white students as black students**). Gap increases as kids get older.

*http://nclb.osse.dc.gov/dccas_reportcards.asp

2009 DC CAS Reading

- The gap widens even more for advanced students in reading:
  - Over 7 times as many white students are advanced compared to black students in 6th grade and system wide overall.

*http://nclb.osse.dc.gov/dccas_reportcards.asp

2009 DC CAS Math

- The achievement gap is slightly wider in math:
  - 41% of black students are proficient vs. 92% of white students in 6th grade. (**twice as many or 51% gap**)
  - 37% of black students vs. 86% of white students system wide. (**twice as many or 49% gap**)

*http://nclb.osse.dc.gov/dccas_reportcards.asp

Closing the Gap

- The Achievement gap can close in DCPS!
- Over two years, my fifth and then sixth grade classes significantly closed the gap.

Closing the Gap 2007 - 2008

- In 2007-2008, my fifth grade class:
  - 11% Hispanic, 16% Asian, 21% White, 53% Black *(rounded to nearest percent)*
  - **Reading** overall proficiency:
    - Started: 40% of black students proficient vs. 100% of white students (**gap 60%**)
    - Finished: 80% of black students proficient vs. 100% of white students (**20% gap—closed by two thirds**)
  - **Math** overall proficiency:
    - Started: 40% of black students proficient vs. 100% of white students (**gap 60%**)
    - Finished: 70% of black students proficient vs. 100% of white students (**30% Gap—closed by half**)

- However, while the achievement gap in overall proficiency closed, results were mixed among advanced students:
  - **Reading**:
    - Started: No black students advanced vs. 25% of white students advanced.
    - Finished: 10% of black students advanced vs. 75% of white students. **Both groups increased, but gap widened from 25% to 65%.**
  - **Math**:
    - Started: No black students advanced vs. 50% of white students advanced.
    - Finished: 20% of black students advanced vs. 50% of white students. **Gap closed from 50% to 30%.**

Closing the gap 2007 - 2008

Closing the Gap 2008-2009

- In 2008-2009, my sixth grade class:
  - 15% Hispanic, 18.5% Asian, 18.5% White, 48% Black
  - Reading overall proficiency:
    - Started: 85% of black students proficient vs. 100% of white students.
    - Finished: 92% of black students proficient vs. 100% of white students. **Gap is only 8% or 1 student.**
  - Math overall proficiency:
    - Started: 54% of black students proficient vs. 100% of white students.
    - Finished: 92% of black students proficient vs. 100% of white students. **Gap closed from 46% to 8% or 1 student.**

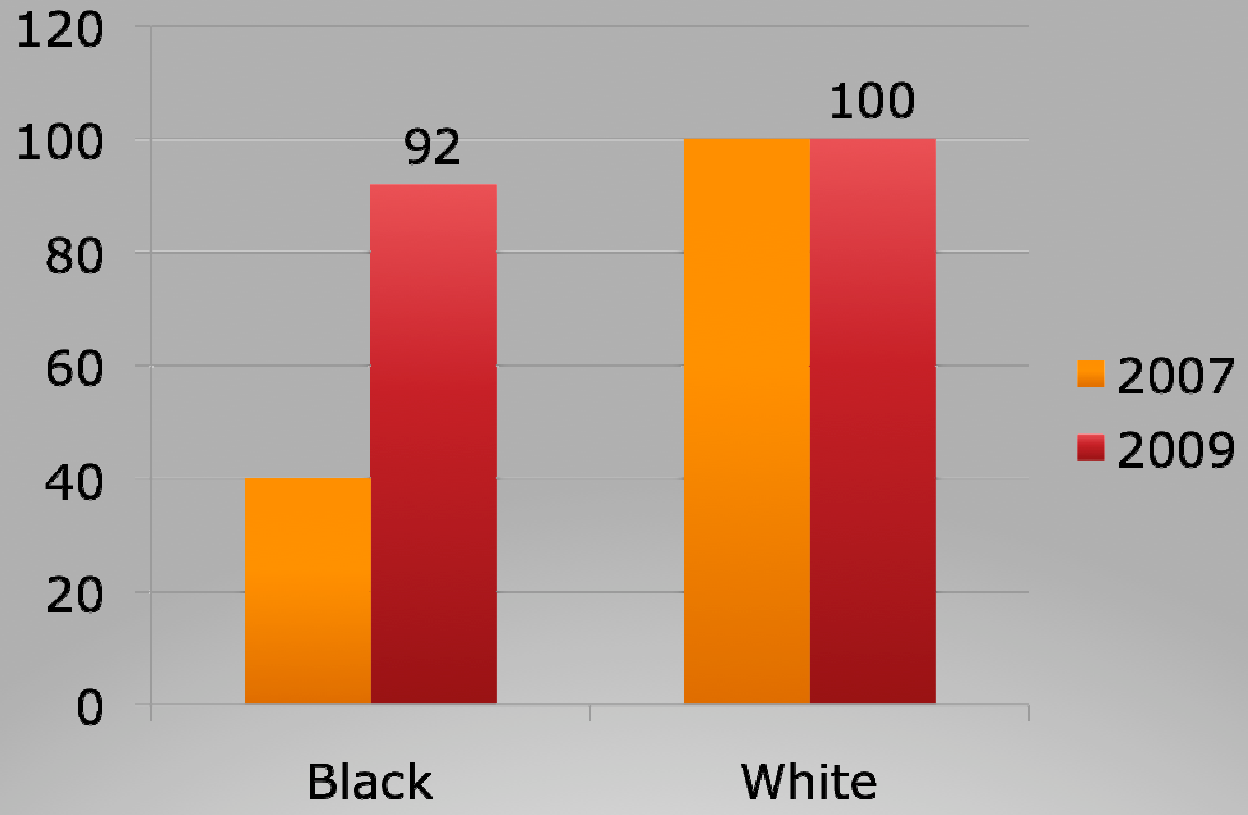
- Achievement gap closed significantly among advanced students as well:
- Reading:
  - Started: 15% of black students advanced vs. 20% of white students.
  - Finished: 38% of black students vs. 40% of white students. Both groups at least doubled, but **gap closed to a marginal 2%.**
- Math:
  - Started: 23% of black students advanced vs. 40% of white students.
  - Finished: 62% of black students vs. 80% of white students. Both groups again doubled, but **gap closed by more than half to 8%.**

Closing the Gap 2008-2009

Closing the gap over 2 years

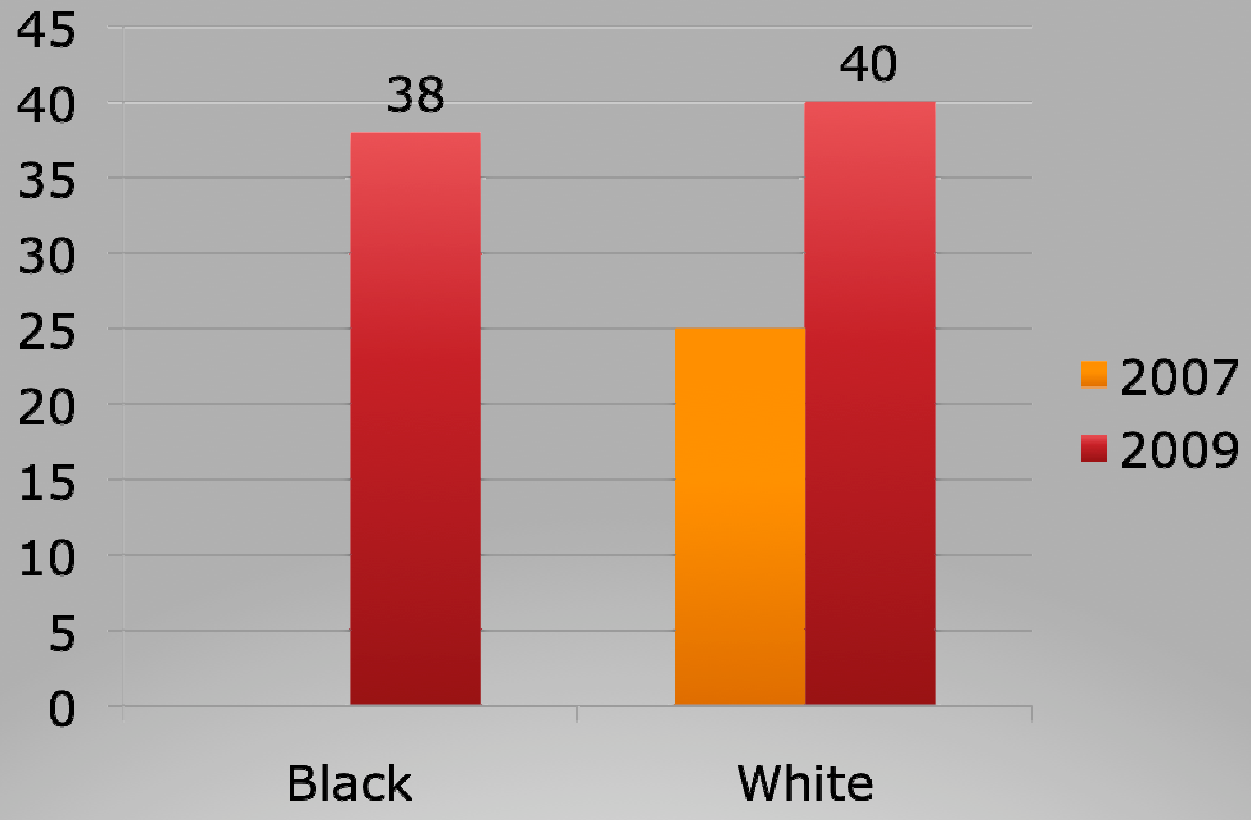
- Looking at the gap as a 2 year process:
  - Every student and every racial group made progress: no groups of students were stagnant.
  - First year (5th Grade)
    - More overall movement from "below basic" and "basic" to "proficient" closing the overall proficiency gap.
  - Second year (6th Grade)
    - more movement from "proficient" to "advanced
    - All achievement gaps closed considerably

- Reading overall proficiency:
  2007 students enter, 2009 students leave



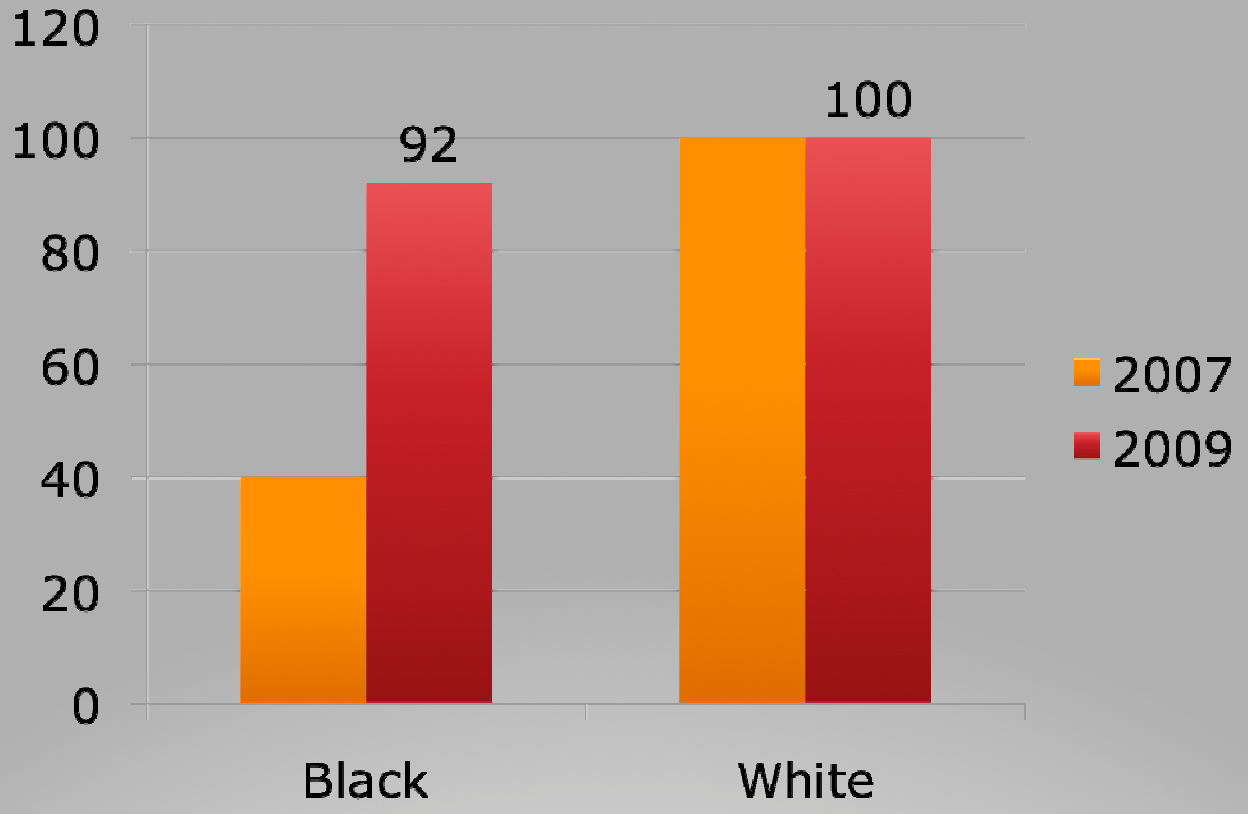
Closing the gap over two years

- Advanced in Reading
  2007 students enter, 2009 students leave



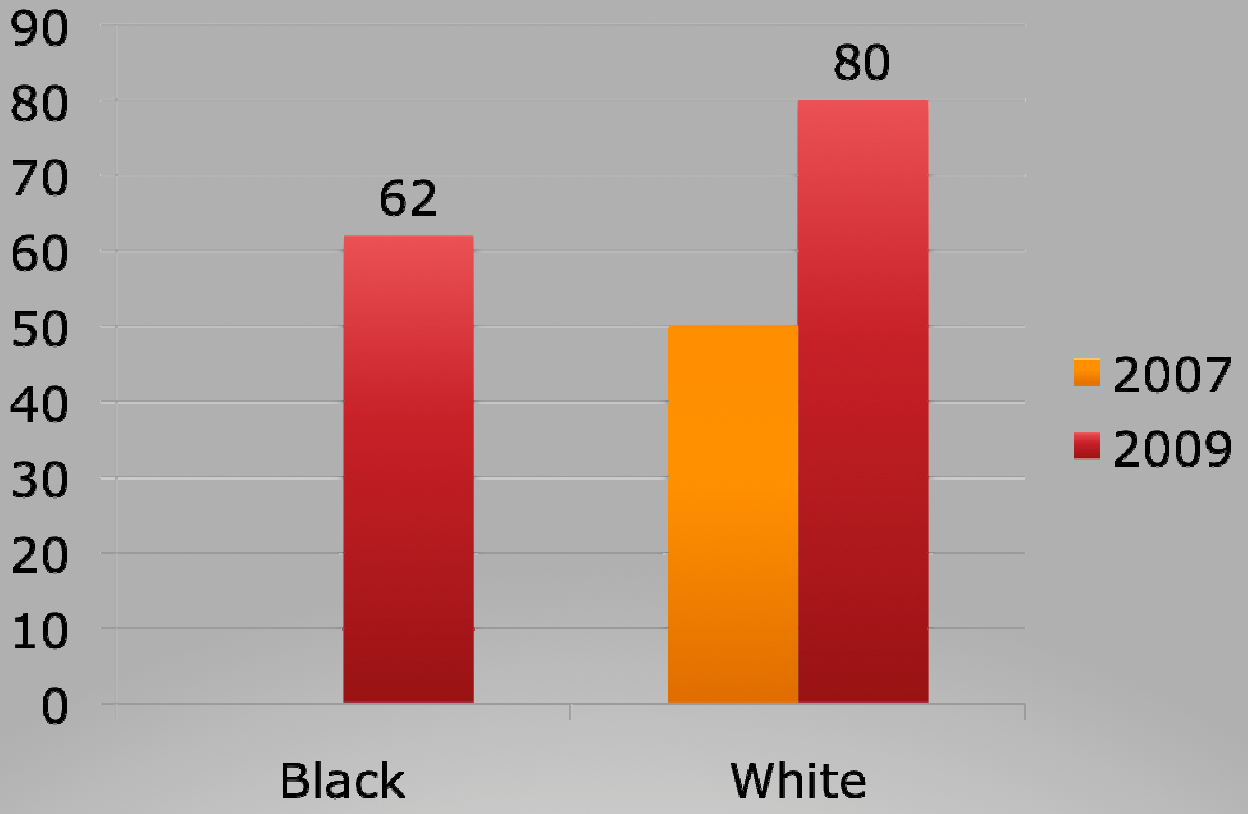
Closing the gap over two years

- Math overall proficiency:
  2007 students enter, 2009 students leave



Closing the gap over two years

- Advanced in Math
  2007 students enter, 2009 students leave



Closing the gap over two years

- At the end of 2009, my class as a whole was*:
- 93% prof & above in Reading and Math
- 71% advanced in Math
- 29% advanced in Reading

*2009 DC CAS Results

Closing the gap over two years

How to close the gap

- Some keys to closing the gap

1. Equality of Learning
2. 8:30 to 3:30 is NOT enough
3. Do NOT “teach to the test”
4. Give parents/families the tools they need

Keys to closing the gap

- Equality of Learning
  - There is no IQ. And, it should never have been a determining factor.
  - We must believe that all children can learn the material at the highest level and be proficient and even advanced.
    - Our expectations and our academic rigor must reflect this
    - Some students may take longer, need more help, have to work much harder (and need to do much more work). It won't be fair; but, they can do it.

Keys to closing the gap

- 8:30 to 3:30 is NOT enough
  - People say the achievement gap starts before students enroll in kindergarten; that it starts at home.
  - The strongest and best readers do NOT just read at school between 8:30 and 3:30.
  - As a teacher, you need to motivate and incentivize learning outside the classroom.
  - For many elementary school skills, kids need a tremendous amount of independent practice (some students need much more practice than others). 8:30 to 3:30 does NOT give them both the instruction and practice they need.

Keys to closing the gap

- Do NOT "Teach to the Test"
  - Know your students, assess your students, and know the curriculum across grade levels.
  - Teach them what they need **in addition** to your grade level curriculum & standards.
  - Examples:
    - Chapter Book Studies
    - Project based learning activities
    - Math Fluency

- Chapter Book Studies:
  - 6th grade Houghton Mifflin Texts are all short stories or short excerpts.
  - 6th DC CAS & DC BAS Reading tests are all short passages (1-2 pages), HOWEVER:
  - I noticed that many of my students had never read a chapter book. Many did not like to read, and many did not read recreationally.
  - Even though there was no direct connection to our standardized tests, I knew my students needed to learn how to actively read long chapter books.

Keys to closing the gap

- Chapter Book Studies continued…
  - We did in-depth, chapter by chapter small reading group studies of four 500+ page chapter books.
  - Every student in the class read every page in every book, and answered constructed responses for every chapter.
  - Students kept detailed "character study notebooks" recording important character details including foreshadowing and inferences.
  - Kids built reading stamina, developed a love of reading, and were able to engage literature in a whole new way.
  - Many parents also ended up reading the books.
  - Lastly, every student read over 1,500 pages!

Keys to closing the gap

- Fall Scary Story unit:
  - After reading and analyzing several scary stories as a class, small groups were each assigned one story:
    - They cooperatively wrote a script,
    - Rehearsed their performances with props and sound effects (learning script conventions)
    - Presented their play to the class before Halloween.
    - Lastly, they divided their stories/plays into key scenes, and, in art class, created collages for each scene. I scanned the collages, and they created iMovies of their stories complete with a full cast audio (similar to reading rainbow).

Keys to closing the gap

Keys to closing the gap

- Creation Story Unit:
  - Following up on the scary story unit, we read and analyzed creation stories from around the world.
  - Students in pairs using the writing process wrote their own, original creation stories and published them as iMovies complete with narration, sound effects, music and illustrations.
- We did two more iMovie projects
  - including a research iMovie for the Washington Wizards about two of their international players.

Keys to closing the gap

- Math Fluency:
  - When school first started, I assessed the math fluency of all of my students.
  - Only 2 students were fluent with single digit addition, subtraction, multiplication and division as measured by timed tests.
  - We created a 5 minute program 3 times a week with a progress wall in addition to our regular math program.
    - Students were tested 3 times a week on the particular math fluency step they were on (e.g. addition by three). If they passed, they moved on to the next step, if not they stayed at the step.
    - After 3 months, most of my students graduated from the program mastering all single digit facts.

Keys to closing the gap

- Give parents/families the tools they need:
  - Before and afterschool extra support
  - Workshops for parents in the content areas (3 dimensional shapes, attributes and measurement; partial product and partial quotient operations, etc.)
  - Send exemplars of student work home
  - Recess and afterschool homework support
  - Daily communication (phone & email) with parents
  - Work packets, additional practice, specific internet tutorials
  - This year, I created a website and blog for each class giving parents a daily overview of our lesson, a preview of the next week, homework, and electronic copies of class notes, worksheets and other documents.